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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,376	03/30/2001	George H. Butcher III	7056.014	5338

45599 7590 05/17/2005

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EXAMINER
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BORLINGHAUS, JASON M

ART UNIT	PAPER NUMBER
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3628

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/823,376	<b>Applicant(s)</b> BUTCHER, GEORGE H.	
	<b>Examiner</b> Jason M. Borlinghaus	<b>Art Unit</b> 3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/29/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 – 33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract that do not apply, involve, use, or advance the technological arts fail to promote the “progress of science and the useful arts” and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

In the present case, Claims 1 –33 only recite an abstract idea. Claims 1 – 33 do not apply, involve, use, or advance the technological arts since all of the recited steps can be performed in the mind of the user or by use a pencil and paper.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case, the claimed invention structures credit having a repayment obligation.

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Although the recited process produces a useful, concrete, and tangible result, since the claimed invention, as a whole, is not within the technological arts as explained above, Claims 1 – 33 are deemed to be directed to non-statutory subject matter.

***Claim Rejections - 35 USC § 112***

Regarding Claims 4, 8, 11, 18, 28 and 31, the claims cannot be clearly understood due to the open-ended nature of the Markush group. A Markush group must be definite and complete as to its membership. The Markush group in Claims 4, 8, 11, 18, 28 and 31 are indefinite as to scope in the use of the term “including” in the phrase “selected from the group including...” and the Claims are therefore rejected. Examiner suggests that the applicant replace the phrase “selected from the group including...” with the phrase “selected from the group consisting of” to overcome this rejection.

Correction is required. See MPEP § 2173.05 (h).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post (*Canadian Market Benefits Less From CPI News, Financial Post* (June 15, 2000), p. 02) in view of Ainger (Ainger, Will. *XL Capital Preps Cat Bond Debut, Insurance Finance & Investment*. v. 4, n. 11 (May 31, 1999), p. 01).

**Regarding Claim 1**, Financial Post discloses a method comprising:

- setting an expected maturity date (June 2003) and a final maturity date for the credit (June 2003). ("Telus Communications (BC) Inc. priced an extendible, \$200-million bond with a 6.4% coupon to mature in June, 2003. The bond is extendible to June, 2030 with a 7.25% coupon." – see p. 02);
- requiring that the repayment obligation be met by the expected maturity date (June 2003) unless the maturity date is extended to final maturity date (June 2030); and
- requiring that the repayment obligation be met by the final maturity date (June 2030) to the extent that the repayment obligation is not met by the expected maturity date (June 2003).

Financial Post does not teach a method comprising:

- requiring that the repayment obligation be met by the expected maturity date unless at least one predefined event occurs.

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Ainger discloses a method comprising:

- requiring that the repayment obligation be met by the expected maturity date unless at least one predefined event (disaster) occurs. ("The Pacific Re dual-event bond was extendible from five to seven years in the event of an initial disaster occurring." – see p. 01)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Financial Post's extendible bond by incorporating a pre-defined event, as was done by Ainger, to clearly establish the situation in which a bond extension may occur, allowing investors to gauge the likelihood of the pre-defined event and, in turn, the likelihood of the bond extension.

**Regarding Claims 13**, Financial Post discloses a method wherein:

- the credit is a bond (an extendible \$200 million bond).

**Claims 2 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post and Ainger, as in Claim 1 above, and in further view of Livingston (Livingston, M. *Bonds & Bond Derivatives*. Massachusetts, Blackwell Publishers, 1999. pp. 25 – 26).

Neither Financial Post nor Ainger teach a method wherein:

- the credit has an underlying revenue stream associated therewith and the predefined event is the failure of the revenue stream to cover the requirements of the repayment obligation; and
- the revenue stream is a net revenue stream.

Livingston discloses a method wherein:

- the credit has an underlying revenue stream associated therewith and the revenue stream is used to cover the requirements of the repayment obligation. (“Other municipal bonds are revenue bonds, which are sold to finance a specific project. Only the revenues from that project are used to repay the revenue bonds. An example would be a toll highway; the revenue from the tolls is used to repay the bond holders. Revenue bonds are higher-risk and carry higher yields than general obligation bonds.” – see p. 26 – establishing that the bond is associated with the project’s underlying revenue stream and such stream is used to cover the repayment obligation); and
- the revenue stream is a net revenue stream (It would be inherent in a revenue bond that the revenue stream used to repay the bond would be a net revenue stream (revenue after expenses). Otherwise, a project would be required to repay the bonds while operating at a loss which would endanger the bond-funded project and would be counter-productive to securing the bond in the first place.)

Livingston does not teach a method wherein:

- the credit has an underlying revenue stream associated therewith and the predefined event is the failure of the revenue stream to cover the requirements of the repayment obligation.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have identified Financial Post and Ainger’s pre-defined event as

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the failure of the revenue stream to cover the repayment obligation since the repayment funds of a revenue bond are limited to the net revenue generated by the identified revenue-generating project, as illustrated by Livingston.

**Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Ainger, and Livingston, as in Claim 2 above, and in further view of Merriam-Webster (*Merriam-Webster's Collegiate Dictionary: 10<sup>th</sup> Edition*. Massachusetts, Merriam-Webster, 1997, p. 455).

Neither Financial Post nor Ainger disclose a method wherein:

- the failure of the revenue stream to cover the requirements of the repayment obligation results from a force majeure event.

Livingston discloses a method wherein:

- there is a possibility of the failure of the revenue stream to cover the requirements of the repayment obligation. ("Only the revenues from that project are used to repay the revenue bonds... Revenue bonds are higher-risk and carry higher yields than general obligation bonds." – see p. 26 – establishing that the project's revenue stream is used to cover the repayment obligation and that the revenue stream may fail to cover the repayment obligation, as is evidenced by the bond's higher risk nature.)

Livingston does not teach a method wherein:

- the failure of the revenue stream to cover the requirements of the repayment obligation results from a force majeure event.

Merriam-Webster discloses a method wherein:



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- an event is a force majeure event (“an event or effect cannot be reasonably anticipated or controlled.” – p. 455).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have limited Financial Post, Ainger and Livingston's pre-defined event to a force majeure event, as defined by Merriam-Webster, to prevent the possibility of fraud by the bond issuer.

**Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Ainger, and Livingston, as in Claim 2 above, and in further view of O'Shaughnessy (O'Shaughnessy, Lynn. *The Unofficial Guide to Investing*. New York, Macmillan General Reference, 1999, p. 152).

Neither Financial Post nor Ainger disclose a method wherein:

- the revenue stream flows from a project selected from the group including:
  - i) an airport project; and ii) a sewer project.

Livingston discloses a method wherein:

- the revenue stream flows from a project (see p. 26).

Livingston does not teach a method wherein:

- the revenue stream flows from a project selected from the group including:
  - i) an airport project; and ii) a sewer project.

O'Shaughnessy discloses a method wherein:

- a project selected from the group including: i) an airport project; and ii) a sewer project. (“State and local governments issue municipal bonds to

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build such things as sewage systems, airports, bridges, hospitals, prisons, highways, and other high-ticket items.” – see p. 152).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized Financial Post, Ainger and Livingston's extendible municipal revenue bond to fund the construction of an airport and a sewer system, as illustrated by O'Shaugnessy, since both projects are typically funded by such bonds.

**Claims 5 – 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post and Ainger, as in Claim 1 above, and in further view of Shinn (Shinn, Paul. *Bond Banks & Revolving Loan Funds, Government Finance Review*. Chicago: June 1988, vol. 4, issue 3, pp. 36 – 37).

Neither Financial Post nor Ainger teach a method wherein:

- the credit is issued as part of a pool of credits; and
- the pool of credits is associated with a state revolving fund program.

Shinn discloses a method wherein:

- the credit is issued as part of a pool of credits. (“Several small issues are pooled into one large issue that can be sold on the national market.” – see abstract); and
- the pool of credits is associated with a state revolving fund program (“Revolving loan funds are intended to be self-supporting and differ from bond banks in several ways, including: 1. Funds are recycled...Many states combine revolving loan funds with other financing techniques for more flexibility.” – see abstract).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to have tied Financial Post and Ainger's extendible municipal revenue bonds to a pool of credits and a state revolving fund program, as illustrated by Shinn, to provide a bond issuer with greater financing flexibility.

**Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post and Ainger, as in Claim 1 above, and in further view of Reckard (E. Scott Reckard Associated Press. *Holders of County's Bonds Vote to Extend Maturities*, *The Fresno Bee*. Fresno, California (July 8, 1995) p. 4).

Neither Financial Post nor Ainger teach a method wherein:

- additional interest on a principal portion of the repayment obligation which is not met by the expected maturity date continues to accrue until the principal portion of the repayment obligation is met.

Reckard discloses a method wherein:

- additional interest on a principal portion of the repayment obligation which is not met by the expected maturity date continues to accrue until the principal portion of the repayment obligation is met. ("Postponing the deadline will add \$10 million in interest and penalties to the final tab, but the extra time to make the debt is worth it." – see p. 4 - It is inherent that interest would continue to accrue on the principal portion not paid until the repayment obligation was met.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated into Financial Post and Ainger's extendible

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municipal revenue bonds the concept that interest would continue to accrue on the unpaid principal until it was paid, as was disclosed by Reckard, to prevent the bond issuer from obtaining any unjust enrichment from its inability to repay its debt obligations.

**Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Ainger and Reckard, as in Claim 7 above, and in further view of Rowen (Rowen, Hobart. *Debt Relief Gets A Cautious Nod*, *The Washington Post*. (October 8, 1987) p. A23).

Neither Financial Post, Ainger nor Reckard teach a method wherein:

- the additional interest is paid using a mechanism selected from the group consisting of (i) accretion of principal to the principal portion of the obligation in the amount of the unpaid additional interest.

Rowen discloses a method wherein:

- the additional interest is paid using a mechanism selected from the group consisting of (i) accretion of principal to the principal portion of the obligation in the amount of the unpaid additional interest (interest capitalization). ("Last week, he broadened the menu to include a cautious endorsement of 'voluntary interest capitalization' for selected small debtor countries. They would be allowed to add interest payments onto the loan capital itself. Banks don't like interest capitalization because it takes current interest payments off their balance sheets" – see p. A23).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated into Financial Post, Ainger and Reckard's extendible municipal revenue bonds the ability to capitalize interest, as illustrated by Rowen, to provide a bond issuer with greater financing flexibility.

**Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Ainger, Reckard and Rowen, as in Claim 8 above, and in further view of Flaum (Flaum, David. *New Types of Bonds Hold Some Twists*, *Orange County Register*. Santa Ana, California (October 3, 1988), pp. c1 & c12).

Neither Financial Post, Ainger, Reckard nor Rowen teach a method wherein:

- the increase in the interest rate on any unpaid part of the principal portion of the repayment obligation increases in each year following the expected maturity date.

Flaum discloses a method wherein:

- the increase in the interest rate on any unpaid part of the principal portion of the repayment obligation increases in each year following the expected maturity date. ("The extendible feature gives the issuer flexibility, especially if the rate is 'resettable' at the time the company or municipality issuing them decides whether to extend the maturity". – see c1. "After the rate is reset for the first time, subsequent resettable dates usually come up every year." – see p. c12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated into Financial Post, Ainger, Reckard and

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Rowen's extendible municipal revenue bonds the ability to increase the interest rate every year after its expected maturity date, as disclosed by Flaum, to provide the bond issuer with greater financing flexibility.

**Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post and Ainger, as in Claim 1 above, and in further view of Reckard and Downes (Downes, John and Goodman, Jordan Elliot. *Barron's Finance and Investment Handbook*. New York, Barron's Educational Series, 1987, p.215).

Neither Financial Post nor Ainger teach a method wherein:

- additional interest on an interest portion of the repayment obligation which is not met by the expected maturity date continues to accrue until the interest portion of the repayment obligation is met.

Reckard discloses a method wherein:

- additional interest on a principal portion of the repayment obligation which is not met by the expected maturity date continues to accrue until the principal portion of the repayment obligation is met. ("Postponing the deadline will add \$10 million in interest and penalties to the final tab, but the extra time to make the debt is worth it." – see p. 4 - It is inherent that interest would continue to accrue on the principal portion not paid until the repayment obligation was met.)

Reckard does not teach a method wherein:

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- additional interest on an interest portion of the repayment obligation which is not met by the expected maturity date continues to accrue until the interest portion of the repayment obligation is met.

Downes discloses a method wherein:

- additional interest on an interest portion of the repayment obligation continues to accrue. ("Compound interest [is] interest earned on principal plus interest that was earned earlier." – see p. 215).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated into Financial Post and Ainger's extendible municipal revenue bonds the concept that interest would compound itself, as disclosed Downes, in the same manner as interest accrued to the principal, as disclosed by Reckard, to prevent the bond issuer from obtaining any unjust enrichment from its inability to repay its debt obligations.

**Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Ainger, Reckard and Downes, as in Claim 10 above, and in further view of Rowen.

Neither Financial Post, Ainger, Reckard nor Downes teach a method wherein:

- the additional interest is paid using a mechanism selected from the group consisting of (i) accretion of principal to the principal portion of the obligation in the amount of the unpaid additional interest.

Rowen discloses a method wherein:

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- the additional interest is paid using a mechanism selected from the group consisting of (i) accretion of principal to the principal portion of the obligation in the amount of the unpaid additional interest (interest capitalization). (“Last week, he broadened the menu to include a cautious endorsement of ‘voluntary interest capitalization’ for selected small debtor countries. They would be allowed to add interest payments onto the loan capital itself. Banks don’t like interest capitalization because it takes current interest payments off their balance sheets” – see p. A23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated into Financial Post, Ainger, Reckard and Downes’s extendible municipal revenue bonds the ability to capitalize compound interest, as illustrated by Rowen, to provide the bond issuer with greater financing flexibility.

**Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Ainger, Reckard, Downes and Rowen, as in Claim 11 above, and in further view of Flaum.

Neither Financial Post, Ainger, Reckard nor Rowen teach a method wherein:

- the increase in the interest rate on any unpaid part of the principal portion of the repayment obligation increases in each year following the expected maturity date.

Flaum discloses a method wherein:



- the increase in the interest rate on any unpaid part of the principal portion of the repayment obligation increases in each year following the expected maturity date. (“The extendible feature gives the issuer flexibility, especially if the rate is ‘resettable’ at the time the company or municipality issuing them decides whether to extend the maturity”. – see p. c1. “After the rate is reset for the first time, subsequent resettable dates usually come up every year.” – see p. c12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated into Financial Post, Ainger, Reckard, Downes and Rowen’s extendible municipal revenue bonds the ability to increase the interest rate every year after its expected maturity date, as disclosed by Flaum, to provide a bond issuer with greater financing flexibility.

**Claims 15, 16, 19, 22 and 33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Livingston, and in further view of Bella (Bella, Rick. *Sewer Rates Likely To Rise. The Oregonian*. Portland, Oregon (July 17, 2000) p. E02).

**Regarding Claims 15 and 16**, Financial Post discloses a method comprising:

- setting an expected maturity date (June 2003) and a legal maturity date for the bond (June 2030). (“Telus Communications (BC) Inc. priced an extendible, \$200-million bond with a 6.4% coupon to mature in June, 2003. The bond is extendible to June, 2030 with a 7.25% coupon.” – see p. 02); and

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- deferring the payment of the repayment obligation as late as the legal maturity date (June 2030) to the extent that the repayment obligation is not met by the expected maturity date (June 2003).

Financial Post does not teach a method comprising:

- requiring that the bond issuer establish revenue rates sufficient to pay the repayment obligation by the expected payment date;
- wherein the bond has an underlying revenue stream; and
- wherein the deferral of the payment of the repayment obligation occurs upon the failure of the revenue stream to cover the requirements of the repayment obligation.

Livingston discloses a method wherein:

- the bond has an underlying revenue stream. ("Other municipal bonds are revenue bonds, which are sold to finance a specific project.— see p. 26);  
and
- there may be a failure of the revenue stream to cover the requirements of the repayment obligation. ("Only the revenues from that project are used to repay the revenue bonds. An example would be a toll highway; the revenue from the tolls is used to repay the bondholders. Revenue bonds are higher-risk and carry higher yields than general obligation bonds." — see p. 26 — establishing the possibility that the revenue stream might not cover the requirements of the repayment obligation).

Bella discloses a method comprising:

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- requiring that the bond issuer establish revenue rates sufficient to pay the repayment obligation by the expected payment date. ("Either way, sewer rates are likely to climb. According to Financial Consulting Solutions, which the city contracted to study water and sewer rates, the city needs the additional revenue from a rate increase to pay off revenue bonds sold last year to finance sewer system improvements." – see p. E02).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the extension of Financial Post's extendible bond contingent on the failure of the revenue stream to cover the repayment obligation since, as illustrated by Livingston, the repayment funds of a revenue bond are limited to the revenue generated by the identified revenue-generating project. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Financial Post's extendible bond by incorporating revenue rates, in the same manner as were determined in Bella, to establish revenue rates necessary to satisfy the repayment obligation.

**Regarding Claim 19**, Financial Post discloses a method wherein:

- there is a repayment obligation (extendible bond) with an expected payment date (June 2003) and a legally payable debt service (June 2030). ("Telus Communications (BC) Inc. priced an extendible, \$200-million bond with a 6.4% coupon to mature in June, 2003. The bond is extendible to June, 2030 with a 7.25% coupon." – see p. 02).

Financial Post does not teach a method wherein:

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- the step of requiring that the bond issuer establish revenue rates sufficient to pay the repayment obligation by the expected payment date further comprises requiring that the bond issuer establish revenue rates sufficient to pay both the repayment obligation by the expected payment date and a legally payable debt service.

Livingston discloses a method wherein:

- bond is repaid from revenue generated by bond-funded project. ("Only the revenues from that project are used to repay the revenue bonds. An example would be a toll highway; the revenue from the tolls is used to repay the bondholders." – see p. 26).

Bella discloses a method wherein:

- the bond issuer establishes revenue rates sufficient to pay the repayment obligation by the expected payment date further comprises requiring that the bond issuer establish revenue rates sufficient to pay both the repayment obligation by the expected payment date and a legally payable debt service. ("Either way, sewer rates are likely to climb. According to Financial Consulting Solutions, which the city contracted to study water and sewer rates, the city needs the additional revenue from a rate increase to pay off revenue bonds sold last year to finance sewer system improvements." – see p. E02 – establishing that revenue rates are to be established at a level sufficient to pay the repayment obligations repayment).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Financial Post and Livingston's extendible bond by incorporating revenue rates, in the same manner as were determined in Bella, to satisfy all repayment obligations, at the expected payment date and any remaining repayment obligations that were deferred to the legal payment date.

**Regarding Claim 22**, Financial Post discloses a method wherein:

- the step of requiring the bond issuer to pay the obligation by the expected payment date (June 2003) is a continuing requirement even if the repayment obligation is deferred (until June 2030). ("Telus Communications (BC) Inc. priced an extendible, \$200-million bond with a 6.4% coupon to mature in June, 2003. The bond is extendible to June, 2030 with a 7.25% coupon." – see p. 02).

Neither Financial Post nor Livingston teach a method wherein:

- the step of requiring that the bond issuer establish revenue rates sufficient to pay the obligation by the expected payment date is a continuing requirement even if the repayment obligation is deferred.

Bella discloses a method wherein:

- the step of requiring that the bond issuer establish revenue rates sufficient to pay the obligation. ("Either way, sewer rates are likely to climb. According to Financial Consulting Solutions, which the city contracted to study water and sewer rates, the city needs the additional revenue from a rate increase to pay off revenue bonds sold last year to finance sewer

system improvements.” – see p. E02 – establishing that revenue rates are to be established at a level sufficient to pay the repayment obligations repayment).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Financial Post and Livingston's extendible municipal revenue bond by incorporating revenue rates, in the same manner as were determined in Bella, to satisfy all repayment obligations, even if deferred until the legal payment date, to ensure issuer's fulfillment of repayment obligations.

**Regarding Claim 33**, neither Financial Post nor Bella teach a method wherein:

- the revenue is a net revenue stream.

Livingston discloses a method wherein:

- the revenue is a net revenue stream. (It would be inherent in a revenue bond that the revenue stream used to repay the bond would be a net revenue stream (revenue after expenses). Otherwise, a project would be required to repay the bonds while operating at a loss which would endanger the bond-funded project and would be counter-productive to securing the bond in the first place.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have limited the revenue stream linked to Financial Post, Bella and Livingston's extendible municipal revenue bond to the net revenue stream generated by the identified revenue-generating project to prevent the repayment of the

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revenue bond from the pre-expense revenue which could possibly endanger the bond-funded project.

**Claim 17** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Bella, and Livingston, as in Claim 16 above, and in further view of Merriam-Webster (*Merriam-Webster's Collegiate Dictionary: 10<sup>th</sup> Edition*, Massachusetts, Merriam-Webster, 1997, p. 455).

Neither Financial Post nor Bella disclose a method wherein:

- the failure of the revenue stream to cover the requirements of the repayment obligation results from a force majeure event.

Livingston discloses a method wherein:

- there is a possibility of the failure of the revenue stream to cover the requirements of the repayment obligation. ("Only the revenues from that project are used to repay the revenue bonds... Revenue bonds are higher-risk and carry higher yields than general obligation bonds." – see p. 26 – establishing that the project's revenue stream is used to cover the repayment obligation and that the revenue stream may fail to cover the repayment obligation, as is evidenced by the bond's higher risk nature.)

Livingston does not teach a method wherein:

- the failure of the revenue stream to cover the requirements of the repayment obligation results from a force majeure event.

Merriam-Webster discloses a method wherein:

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- an event is a force majeure event (“an event or effect cannot be reasonably anticipated or controlled.” – p. 455).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have limited Financial Post, Bella and Livingston’s bond-funded project’s inability to generate revenue to cover the repayment obligation to a force majeure event, as defined by Merriam-Webster, to prevent the possibility of fraud by the bond issuer.

**Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Bella, and Livingston, as in Claim 16 above, and in further view of O’Shaughnessy (O’Shaughnessy, Lynn. *The Unofficial Guide to Investing*, New York, Macmillan General Reference, 1999, p. 152).

Neither Financial Post nor Bella disclose a method wherein:

- the revenue stream flows from a project selected from the group including:
  - i) an airport project; and ii) a sewer project.

Livingston discloses a method wherein:

- the revenue stream flows from a project (see p. 26).

Livingston does not teach a method wherein:

- the revenue stream flows from a project selected from the group including:
  - i) an airport project; and ii) a sewer project.

O’Shaughnessy discloses a method wherein:

- a project selected from the group including: i) an airport project; and ii) a sewer project. (“State and local governments issue municipal bonds to



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build such things as sewage systems, airports, bridges, hospitals, prisons, highways, and other high-ticket items.” – see p. 152).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized Financial Post, Bella and Livingston’s extendible municipal revenue bond to fund the construction of an airport and a sewer system, as illustrated by O’Shaugnessy, since both projects are typically funded by such bonds.

**Claims 20 – 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Livingston and Bella in view of Ainger (Ainger, Will. *XL Capital Preps Cat Bond Debut, Insurance Finance & Investment*. v. 4, n. 11 (May 31, 1999), p. 01).

Financial Post discloses a method wherein:

- the deferral (until 2030) of the payment of the repayment obligation occurs. (“Telus Communications (BC) Inc. priced an extendible, \$200-million bond with a 6.4% coupon to mature in June, 2003. The bond is extendible to June, 2030 with a 7.25% coupon.” – see p. 02);
- requiring that the repayment obligation be met by the final maturity date (June 2030) to the extent that the repayment obligation is not met by the expected maturity date (June 2003).

Financial Post does not teach a method wherein:

- the deferral of the payment of the repayment obligation occurs upon the occurrence of an objectively determinable event; and
- the objectively determinable event is the existence of a predetermined shortfall between: i) the sum of the repayment obligation and legally

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payable debt service and ii) revenues raised by the revenue rates established by the bond issuer.

Ainger discloses a method wherein:

- the deferral of the payment of the repayment obligation occurs upon the occurrence of an objectively determinable and predetermined event ("If the damage claims from each such an event reach a predetermined level within the first three years of the bond's life, coverage will extend for a further three years." – see page 1).

Livingston discloses a method wherein:

- there may be the existence of a predetermined shortfall i) the sum of the repayment obligation and legally payable debt service and ii) revenues raised. ("Only the revenues from that project are used to repay the revenue bonds. An example would be a toll highway; the revenue from the tolls is used to repay the bondholders. Revenue bonds are higher-risk and carry higher yields than general obligation bonds." – see p. 26 – establishing the possibility that the revenue stream might not cover the requirements of the repayment obligation).

Bella discloses a method wherein:

- revenues are raised by revenue rates established by the bond issuer. ("Either way, sewer rates are likely to climb. According to Financial Consulting Solutions, which the city contracted to study water and sewer rates, the city needs the additional revenue from a rate increase to pay off

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revenue bonds sold last year to finance sewer system improvements.” –  
see p. E02).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Financial Post's extendible bond by tying an objectively determinable and predetermined event, as illustrated by Ainger, to the foreseeable shortfall between the repayment obligation and the revenue raised, as illustrated by Livingston and Bella, to clearly define the situation in which a bond extension may occur, allowing investors to gauge the likelihood of the pre-defined event and, in turn, the likelihood of the bond extension.

**Claims 23 – 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Livingston and Bella, as in Claim 15 above, and in further view of Brigham (Brigham, Eugene F., Gapenski, Louis C. & Daves, Phillip R. *Intermediate Financial Management 6<sup>th</sup> Edition*. Dryden Press, 1999. p.392).

Neither Financial Post nor Livingston teach a method wherein:

- the step of requiring that the bond issuer establish revenue rates sufficient to pay the repayment obligation by the expected payment date further comprises establishing a revenue requirement based on a lower coverage ratio than is used for purposes of either a board policy associated with the bond or a rate covenant associated with the bond; and
- the coverage ratio is greater than 1.

Bella discloses a method wherein:

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- the step of requiring that the bond issuer establish revenue rates sufficient to pay the repayment obligation by the expected payment. ("Either way, sewer rates are likely to climb. According to Financial Consulting Solutions, which the city contracted to study water and sewer rates, the city needs the additional revenue from a rate increase to pay off revenue bonds sold last year to finance sewer system improvements." – see p. E02).

Brigham discloses a method wherein:

- the step of establishing coverage ratios. ("Coverage ratios, which were discussed in detail in Chapter 3, often are used by lenders and rating agencies to measure the risk of financial distress." – see p. 392).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Financial Post and Livingston's extendible municipal revenue bond by incorporating revenue rates sufficient to cover the repayment obligations, as established by Bella, and a coverage ratio, as disclosed by Brigham. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have allowed for any coverage ratio that the inventor desired.

**Claims 25 – 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Livingston and Bella, as in Claim 15 above, and in further view of Shinn.

Neither Financial Post, Livingston nor Bella teach a method wherein:

- the bond is issued as part of a pool of bonds; and

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- the pool of bonds is associated with a state revolving fund program.

Shinn discloses a method wherein:

- the bond is issued as part of a pool of bonds. ("Several small issues are pooled into one large issue that can be sold on the national market." – see abstract); and
- the pool of bonds is associated with a state revolving fund program ("Revolving loan funds are intended to be self-supporting and differ from bond banks in several ways, including: 1. Funds are recycled...Many states combine revolving loan funds with other financing techniques for more flexibility." – see abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have tied Financial Post, Livingston and Bella's extendible municipal revenue bonds to a pool of bonds and a state revolving fund program, as illustrated by Shinn, to provide a bond issuer with greater financing flexibility.

**Claim 27** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Livingston and Bella, as in Claim 15 above, and in further view of Reckard.

Neither Financial Post, Livingston nor Bella teach a method wherein:

- additional interest on a principal portion of the repayment obligation which is not met by the expected payment date continues to accrue until the principal portion of the repayment obligation is met.

Reckard discloses a method wherein:

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- additional interest on a principal portion of the repayment obligation which is not met by the expected payment date continues to accrue until the principal portion of the repayment obligation is met. ("Postponing the deadline will add \$10 million in interest and penalties to the final tab, but the extra time to make the debt is worth it." – see p. 4 - It is inherent that interest would continue to accrue on the principal portion not paid until the repayment obligation was met.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated into Financial Post, Livingston and Bella's extendible municipal revenue bonds the concept that interest would continue to accrue on the unpaid principal until it was paid, as was disclosed by Reckard, to prevent the bond issuer from obtaining any unjust enrichment from its inability to repay its debt obligations.

**Claim 28** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Livingston, Bella and Reckard, as in Claim 27 above, and in further view of Rowen.

Neither Financial Post, Livingston, Bella nor Reckard teach a method wherein:

- the additional interest is paid using a mechanism selected from the group consisting of (i) accretion of principal to the principal portion of the obligation in the amount of the unpaid additional interest.

Rowen discloses a method wherein:

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- the additional interest is paid using a mechanism selected from the group consisting of (i) accretion of principal to the principal portion of the obligation in the amount of the unpaid additional interest (interest capitalization). (“Last week, he broadened the menu to include a cautious endorsement of ‘voluntary interest capitalization’ for selected small debtor countries. They would be allowed to add interest payments onto the loan capital itself. Banks don’t like interest capitalization because it takes current interest payments off their balance sheets” – see p. A23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated into Financial Post, Livingston, Bella and Reckard’s extendible municipal revenue bonds the ability to capitalize interest, as illustrated by Rowen, to provide a bond issuer with greater financing flexibility.

**Claim 29** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Livingston, Bella, Reckard and Rowen, as in Claim 28 above, and in further view of Flaum.

Neither Financial Post, Livingston, Bella, Reckard nor Rowen teach a method wherein:

- the increase in the interest rate on any unpaid part of the principal portion of the repayment obligation increases in each year following the expected payment date.

Flaum discloses a method wherein:

- the increase in the interest rate on any unpaid part of the principal portion of the repayment obligation increases in each year following the expected payment date. (“The extendible feature gives the issuer flexibility, especially if the rate is ‘resettable’ at the time the company or municipality issuing them decides whether to extend the maturity”. – see p. c1. “After the rate is reset for the first time, subsequent resettable dates usually come up every year.” – see p. c12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated into Financial Post, Livingston, Bella, Reckard and Rowen’s extendible municipal revenue bonds the ability to increase the interest rate every year after its expected payment date, as disclosed by Flaum, to provide a bond issuer with greater financing flexibility.

**Claim 30** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Livingston, Bella, as in Claim 15 above, and in further view of Reckard and Downes.

Neither Financial Post, Livingston nor Bella teach a method wherein:

- additional interest on an interest portion of the repayment obligation which is not met by the expected maturity date continues to accrue until the interest portion of the repayment obligation is met.

Reckard discloses a method wherein:

- additional interest on a principal portion of the repayment obligation which is not met by the expected maturity date continues to accrue until the



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principal portion of the repayment obligation is met. ("Postponing the deadline will add \$10 million in interest and penalties to the final tab, but the extra time to make the debt is worth it." – see p. 4 - It is inherent that interest would continue to accrue on the principal portion not paid until the repayment obligation was met.)

Reckard does not teach a method wherein:

- additional interest on an interest portion of the repayment obligation which is not met by the expected maturity date continues to accrue until the interest portion of the repayment obligation is met.

Downes discloses a method wherein:

- additional interest on an interest portion of the repayment obligation continues to accrue. ("Compound interest [is] interest earned on principal plus interest that was earned earlier." – see p. 215).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated into Financial Post, Livingston and Bella's extendible municipal revenue bonds the concept that interest would compound itself, as disclosed Downes, in the same manner as interest accrued to the principal, as disclosed by Reckard, to prevent the bond issuer from obtaining any unjust enrichment from its inability to repay its debt obligations.

**Claim 31** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Livingston, Bella, Reckard and Downes, as in Claim 30 above, and in further view of Rowen.

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Neither Financial Post, Livingston, Bella, Reckard nor Downes teach a method wherein:

- the additional interest is paid using a mechanism selected from the group consisting of (i) accretion of principal to the principal portion of the obligation in the amount of the unpaid additional interest.

Rowen discloses a method wherein:

- the additional interest is paid using a mechanism selected from the group consisting of (i) accretion of principal to the principal portion of the obligation in the amount of the unpaid additional interest (interest capitalization). ("Last week, he broadened the menu to include a cautious endorsement of 'voluntary interest capitalization' for selected small debtor countries. They would be allowed to add interest payments onto the loan capital itself. Banks don't like interest capitalization because it takes current interest payments off their balance sheets" – see p. A23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated into Financial Post, Livingston, Bella, Reckard and Downes's extendible municipal revenue bonds the ability to capitalize compound interest, as illustrated by Rowen, to provide a bond issuer with greater financing flexibility.

**Claim 32** is rejected under 35 U.S.C. 103(a) as being unpatentable over Financial Post, Livingston, Bella, Reckard, Downes and Rowen, as in Claim 31 above, and in further view of Flaum.

Neither Financial Post, Ainger, Reckard nor Rowen teach a method wherein:

- the increase in the interest rate on any unpaid part of the principal portion of the repayment obligation increases in each year following the expected maturity date.

Flaum discloses a method wherein:

- the increase in the interest rate on any unpaid part of the principal portion of the repayment obligation increases in each year following the expected maturity date. ("The extendible feature gives the issuer flexibility, especially if the rate is 'resettable' at the time the company or municipality issuing them decides whether to extend the maturity". – see p. c1. "After the rate is reset for the first time, subsequent resettable dates usually come up every year." – see p. c12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated into Financial Post, Livingston, Bella, Reckard, Downes and Rowen's extendible municipal revenue bonds the ability to increase the interest rate every year after its expected maturity date, as disclosed by Flaum, to provide a bond issuer with greater financing flexibility.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited to are (Pearson, Clare. *Three-Year Dollar Bonds Find Favour, Financial Times*. (April 17, 1986) p.38) and (Anonymous. *Leveraged Funding, Euromoney*. (July 1986) p.MA14) due to their references to

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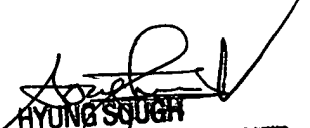
extendible bonds and the refixing of the coupon rate and interest rate at the time of extension. Additional references cited to are (Lebenthal, James A. *Municipal Bonds Need to Be Made a Part of President's Program to 'Rebuild' Nation, Bond Buyer*. New York, NY. vol. 393, iss. 29090 (February 16, 1993) p.26) due to their reference to state revolving funds and (McEvoy, Marty. *Municipal Bonds Do Have Investment Risks, State Journal Register*. Springfield, Illinois. (May 14, 1995) p. 48) due to their reference to municipal revenue bonds.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Borlinghaus whose telephone number is (703) 308-9552. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on (703) 308-0505. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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